

APPENDIX K

HAZARDOUS MATERIALS & SOIL QUALITY INVESTIGATION

(Technical Appendices to this report are on file at the City of San José Department of Planning, Building and Code Enforcement, 200 East Santa Clara Street, San José CA, 3rd Floor)



Hazardous Materials and Soil Quality Evaluation

Coyote Valley Specific Plan EIR

San Jose, California

This report has been prepared for:

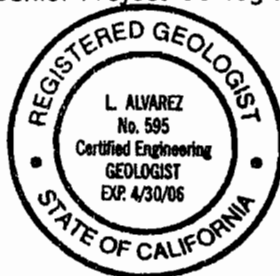
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**SOIL QUALITY EVALUATION
COYOTE VALLEY SPECIFIC PLAN EIR
SAN JOSE, CALIFORNIA**

1.0 INTRODUCTION

1.1 Purpose

In this report, we present the results of the limited environmental assessment and soil quality evaluation performed across the Coyote Valley Specific Plan (CVSP) study area in San Jose, California. This work was performed for David J. Powers and Associates as part of the CVSP Specific Plan EIR. Consistent with the City of San Jose 2020 General Plan, the 7,000-acre study area is subdivided into three different zones with specific land use designations. The North Coyote Valley Campus Industrial area is the northernmost zone and totals approximately 1,400 acres. The Coyote Valley Urban Reserve is generally in the middle and totals approximately 2,000 acres. The southernmost Coyote Greenbelt is the largest zone and totals approximately 3,600 acres (Figures 1 and 2).

The purpose of this study was to strive to document recognized environmental conditions at the site related to current use of hazardous substances and petroleum products primarily directed toward preparation of an Existing Setting/Opportunities and Constraints report to aid in the preparation of the CVSP. In addition, shallow soil samples were collected in the North Coyote Valley Company Industrial Area and the Coyote Valley Urban Reserve for chemical analyses of contaminants likely to be encountered during development activities.

The term "recognized environmental conditions" means the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate a significant release or significant threat of a release into the ground, ground water, or surface water.

1.2 Site Background

The development area of the CVSP consists primarily of the North Coyote Valley Campus Industrial area and the Coyote Valley Urban Reserve Area. The developed area would ultimately be a community of up to approximately 70,000 to 80,000 residents, depending upon the number of persons per household and the actual mix of the different residential densities and typologies expected. The urban design approach for the valley focuses on the guiding principles of a sustainable, transit-oriented, walkable community, containing a mix of uses that utilize land efficiently. The Plan includes uses such as workplace, residential, retail, and mixed use development, structured/shared parking, new roadways, including a main multi-functional parkway and an extension of Bailey Avenue to the southwest towards the Almaden Valley, an internal transit system with a connection to a proposed multi-modal transit station on the west side of the existing Caltrain line, a lake, the relocated and restored Fisher Creek, an urban canal, libraries, schools, services and utilities, parks, trails, and playfields. The Coyote Valley Greenbelt (between Palm Avenue and Morgan Hill and on the east side of Coyote Creek, extending to Highway 101 between Metcalf Road and Morgan Hill), will remain as a permanent non-urban buffer between San José and Morgan Hill.

1.3 Scope of Work

The scope of work for this study was outlined in our agreements dated May 30, 2003 and June 2, 2005 and included the following tasks.

- Our representative performed a site reconnaissance to observe existing conditions; reconnoiter the site to note readily observable indications of present or past activities that may have or could, in our opinion, cause significant site contamination; and collect readily available information on the current site usage. Our observations were made from publicly accessible areas. We did not enter privately owned properties or interview the property owners. The County Agricultural Commissioner was contacted for records pertaining to the use of pesticides at the site.
- To help establish past site usage, our study included a review of the historical sources including aerial photographs and topographic maps. This work assisted in evaluating the potential for past uses of the properties to have impacted soil or ground water quality. Several historic photographs were purchased to assist in identifying and mapping past site uses.
- To help establish the presence and type of contamination incidents reported in the site vicinity, we acquired and reviewed a regulatory agency database report that includes a radius map with symbols representing the approximate location of identified incidents with respect to the site.
- Collecting surface soil samples from agricultural areas to evaluate for the presence of pesticides in soils.
- Collecting surface soil samples along rail-road tracks to evaluate soils potentially impacted with chemicals associated with historic dust and weed control.
- Collecting surface soil samples along Monterey Highway and Santa Teresa Boulevard to evaluate soils for aurally deposited lead resulting from the usage of leaded gasoline.
- Collecting surface soil samples in areas of proposed schools to evaluate soils for naturally occurring asbestos.
- Preparing this report. Our scope of services did not include performance of a complete Phase I environmental site assessment for the Coyote Valley Specific Plan area, nor did it include sampling or analyses of on-site building materials, air, or ground water.

2.0 SITE VISIT/EVALUATION OF CURRENT SITE USES

Our representative, staff environmental engineer Veronica Tiglaio, performed a drive-by survey of the Coyote Valley Specific Plan area (Figure 1) in September 2003. During the drive-by survey, the Coyote Valley Comprehensive Aerial Exhibit (at a scale of inch equals 600 feet) prepared by HMM Engineers was used as a guide and to help identify land uses and potential hazardous materials users. Figure 2 shows locations where potential hazardous materials users were observed during the drive-by survey.

Readily observable properties within the project area that may have historically stored or may currently store or use hazardous materials are presented in Table 1 below. General observations of agricultural areas, residential areas, and nurseries are summarized below. Please note that there may be other properties in the project area where hazardous materials are used or stored that are not shown in Table 1.

Table 1. Readily Observable Potential Hazardous Materials Users

Facility	Figure 2 ID	Address	Facility Type and Observations
PG&E Substation and Metcalf Energy Center	A	150 Metcalf Road (PG&E Substation) Metcalf Energy Center west side of Monterey Road	PG&E construction yard and substation observed; visible fuel pump at construction yard. Potential for impacts from PCBs associated with transformers. Power generating facility under construction at Metcalf Energy Center.
Marra Brothers	B	550 Monterey Road	Commercial warehouse. Observed numerous drums, ASTs, wood pallets.
WKW Mechanical Contractors	C	550 Monterey Road, Unit D	Commercial warehouse.
Mi Pueblo Warehouse	D	550 Monterey Road, Unit E	Commercial warehouse.
Land & Sea	E	2000 Monterey Highway	Apparent sales lot for used cars, boats, and farm machinery. Signage also indicated a servicing shop.
MotorShop	F	8125 Monterey Road	Harley Davidson parts, servicing, and repair shop.
Gateway Boat & RV Storage	G	8125 Monterey Road	Boat & RV storage yard.
United Trucking	H	8215 Monterey Road	Apparent trucking and removal company.
Harvey's Grading, Trenching, Excavation, and Demolition	H	Monterey Road	Grading, trenching, excavation, and demolition company.
Joe's Gas, Bait and Tackle	I	8145 Monterey Road	Observed as current liquor store. No fuel pump observed. Propane tank observed.
Fred Padula Lumber Company	J	8149 Monterey Road	Lumber company. Observed old vehicles, large former storage sheds.
Coyote Creek Golf Club	K	9770 Monterey Road	Golf course and restaurant. Likely maintenance activities, battery storage and pesticide/herbicide use.
Ted's Refinishing	L	9788 Monterey Road	Wood working facility, including refinishing and veneering services.
Shelton Inc. Pipe & Drainage Products	M	9860 Monterey Road	Storage yard, large PVC pipes and railroad ties observed.

(continued)

Table 1. Readily Observable Potential Hazardous Materials Users
(continued)

Facility	Figure 2 ID	Address	Facility Type and Observations
Recreational Vehicle Services, Inc.	N	10900 Monterey Road	Observed commercial property for sales and servicing of recreational vehicles. Observed south of Madrone Avenue.
Former Hudson Gas Station	O	10950 Monterey Highway	Observed shack/former gas station. Fuel pump or island not observed.
Hallmark Equipment Co.	P	11040 Monterey Highway	Apparent commercial property. Observed storage yard for large parts and ASTs.
Harvey's Grading, Trenching, Excavation, and Demolition	Q	Monterey Road	Grading, trenching, excavation, and demolition company.
15 Mile Stop	R	Monterey Road	Restaurant, possible former gas station (signage read "Diesel Fuel"). Fuel pumps not visible at time of site visit. Large trucks stored.
Pacific Bell	S	205 Bailey Avenue	Facility name not observed at time of site visit. Observed commercial property with apparent water tank visible at property.
IBM	T	555 Bailey Road	Observed industrial/R&D property. Signage reported facility as "IBM Silicon Valley Laboratory."
Parkway Lanes RV Park	U	100 Ogier Avenue	Reportedly former Bonner Packing/Parkway Lanes facility with former UST. Observed propane tank. Fuel pumps not visible at time of site visit.
Inland Truss North, LLC	V	10384 Dougherty Avenue	Observed lumberyard.
Wheeler Transportation	W	10492 Dougherty Avenue	Facility name not observed at time of site visit. Observed car garage/shop.
Sheets Plumbing & Steel Company	X	10 San Bruno Avenue	Demolition, excavation, and grading company.
Sierra Precast, Inc.	Y	1 Live Oak Avenue	Observed pre-cast concrete facility.
Redwood Empire, Inc.	Z	10 Madrone Avenue	Observed lumberyard.
Coyote Valley Golf Center	AA	9700 Santa Teresa Boulevard	Driving range.
Monterey Mushrooms	BB	642 Hale Avenue	Observed mushroom composting facility. Observed office buildings, truck loading docks, and large stockpiles of apparent compost.
Spina Farms	CC	Kalana Ave, West of Dougherty	Numerous drums and an apparent fuel AST were visible at a storage yard

(continued)

Table 1. Readily Observable Potential Hazardous Materials Users
(continued)

Facility	Figure 2 ID	Address	Facility Type and Observations
Perusina Farms	DD	547 Live Oak	Waste oil AST visible; also farm equipment, machinery; apparent fuel AST in rear of property.
Residences	EE	Acorn Street	Observed empty drums and water AST in yard
Farm	FF	Santa Teresa Blvd. Between Bailey and Laguna Avenues	ASTs apparently containing pesticides
Farm	GG	300 Laguna Ave.	Residence with water AST; visible construction and farming equipment.
Farm	HH	N/N Laguna Avenue	Former nurseries in disrepair; debris, wooden pallets, farm equipment, abandoned vehicles observed
Farm	II	W end of Laguna Avenue	Visible corrals, old shed, possible former pump house, plastic water and pesticide ASTs
Brass Farm	JJ	Dougherty, between Palm and Kalana	Sod and lawn seed, fertilizers.
Spina Farms	KK	SE corner of Bailey and Santa Teresa	Oak tree wood yard; lumber piles; apparent fuel AST.
Farm	LL	E side of Santa Teresa Blvd., between Bailey and Laguna	Old storehouse/barn; visible farm equipment and machinery; soil and gravel stockpiles.
Nursery	MM	On Scheller Avenue, between Santa Teresa Blvd. And Monterey Highway	AST observed
Nursery	NN	320 Kalana	Large water AST observed
Nursery	OO	335 San Bruno Avenue	Former AST location; covered reservoir at SW corner of Hale and San Bruno.
Storehouse	PP	512B Dougherty Avenue	Large corrugated metal warehouse; pesticide AST labeled "driphb acid".
Storage yard	QQ	Madrone	Yard with sheds, heavy farm and construction equipment; suspect fuel AST; rusty drums.

Agricultural Areas: Numerous properties throughout the entire Coyote Valley Specific Plan area were observed in use for agricultural purposes. Agricultural properties were observed as fallow or in use for pasture, orchards, vineyards, row crops, or planted with crop cover such as alfalfa, oats, hay, beans, gourds, bell peppers, etc. Above-Ground Storage Tanks (ASTs) suspect of containing pesticides, water tanks, and farming machinery were visible at many of the agricultural properties. Storage yards for farming machinery, equipment, and miscellaneous items, such as tires and irrigation pipes, were located on some properties. Storage buildings, often constructed of corrugated metal, also were observed on some properties.

Residential Areas: Most residential developments are in the Coyote Valley Urban Reserve and the Coyote Greenbelt areas. Residential properties observed on-site were often mid-sized to large single-family homes. Water storage tanks and propane tanks were visible at many residential properties observed. Horse stables and/or

corrals also were observed at some residential properties. A possible water well and pump were observed near a residence with associated farmland on the western end of Laguna. Most of the farm houses and other residences obtain their water supply from wells, and they use septic leach field systems for sewage disposal.

Nurseries: Several nurseries with greenhouses were observed mainly in the Coyote Greenbelt Area. ASTs containing pesticides and water tanks were visible at many of the agricultural properties. Storage buildings and yards for farming machinery, equipment, and miscellaneous items, such as wood pallets, were located on some properties. Apparent fuel ASTs were observed at nurseries located on the eastern portion of Miramonte Avenue.

3.0 AREA HISTORY REVIEW

3.1 Aerial Photographs

To evaluate historic uses of the Coyote Valley Specific Plan area and immediate vicinity, we reviewed aerial photographs dated 1939, 1956, 1965, 1982 and 1993 obtained from the EDR Aerial Print Service. Copies of the photographs are included in Appendix A. We also reviewed the 2001 aerial image compiled by HMM Engineers in 2003 titled Coyote Valley Comprehensive Aerial Exhibit.

Aerial photographs commonly provide historical information regarding a site including land uses and changes in development over time. The following is a summary of our observations for the site and site vicinity.

1939: These black and white photographs were taken by Fairchild at a nominal scale of 1 inch equals 555 feet. The photos show the Coyote Valley area generally developed agriculturally, mostly with orchards and other row crops. Orchards are visible on the northeast side of Coyote Creek.

Monterey Highway is the only through-going road in the area, and the Southern Pacific railroad parallels it on the southwest side. Fisher Creek is observed in the southwest portion of the site. The creek is apparently channeled from approximately Palm Avenue to the north, to its confluence with Coyote Creek. Coyote Creek appears meandering along the northeast valley side.

Several structures are visible between Monterey Highway and the railroad tracks at the former Coyote Union Pacific Railroad Depot site. Encinal School appears on Monterey Road southeast of Bailey.

Bailey Road appears unpaved. Former Orchard Road, currently Santa Teresa Boulevard, extends unpaved from the southern area boundary to Scherrer Avenue.

Dougherty Avenue appears unpaved ending at Miramonte Avenue on the north.

Structures, apparently farmhouses and barns, and associated smaller structures, surrounded by trees are visible near roads.

No nurseries, green houses or commercial/industrial developments are visible.

A gravel plant is visible in the Coyote Creek channel east of the former South Coyote Union Pacific Railroad Depot (northwest of the current golf course).

1956: The 1956 black and white aerial photographs were taken by Aero at a nominal scale of 1 inch equals 555 feet. Changes apparent from the previous photographs include the following.

The southern portion of the current PG&E electrical substation is visible.

The gravel plant in Coyote Creek at South Coyote is no longer visible.

Orchards northwest of Encinal School on both sides of Monterey Highway have been removed and have been replaced by other crops.

A row of structures that appear to be small houses is visible on the north side of Richmond Avenue approximately 1,000 feet southwest of the railroad. A reservoir is visible in the middle of the row.

Houses appear under construction along both sides of Coyote Creek south of the eastern extension of Live Oak Avenue.

1965: The 1965 black and white aerial photograph were taken by Cartwright Aerial at a nominal scale of 1-Inch equals 666 feet. Changes apparent from the previous photographs include the following.

Orchards were added or expanded in the area west of Fisher Creek north of Bailey Avenue, in the area currently occupied by IBM, and on the northwest corner of Bailey and Monterey Highway. Apparent preparation for new orchards was visible on the southeast side of Bailey Avenue at the northwest edge of the North Coyote Campus Industrial Area.

Greenhouses appear on Dougherty Avenue south of Miramonte Avenue.

Structures that appear to be warehouses are visible on the northeast corner of Live Oak Avenue and Monterey Highway.

A golf course is visible on the east side of Coyote Creek approximately at the location of the current Coyote Creek Golf Course; a club house and parking area are visible; a water reservoir is visible on the southwest side.

Several structures resembling small guest or worker houses are visible on the north side of Richmond Avenue.

Gravel extraction operations are visible in a strip parallel to and approximately 1,200 feet east of Monterey Highway, east of Amado Avenue and west of Coyote Creek; water filled pits are visible. Gravel pits are also visible south of the golf course on the east side of Coyote Creek.

Orchard Avenue extended along the foothills south of Tilton Avenue.

1982: The 1982 false color infrared aerial photographs at a nominal scale of 1-inch equals 690 feet were taken by WSA. Changes apparent from the previous photographs include the following.

Highway 101 appears under construction. Buildings were added to the PG&E substation in an area previously occupied by orchards to the northwest.

Orchard Avenue (Santa Teresa Boulevard) extended northwest of Bailey Avenue. Bailey Avenue appears widened southeast of Orchard Avenue (Santa Teresa Boulevard).

Preparation for a golf course is visible on the south side of Bailey Avenue east of the current IBM site; water filled pits (from gravel extraction for road widening and golf course construction) are visible. The original canal off Fisher Creek was rerouted around the gravel extraction pit.

Greenhouses are visible on south side of Laguna Avenue, southwest of Monterey Highway.

Apparent residential development is visible on both sides of Dougherty Avenue, north of Laguna Avenue; on Scheller Avenue and Lantz Drive; and along Dougherty Avenue southeast of Palm Avenue.

Apparent commercial development was shown at Miramonte Avenue on both sides of Orchard Avenue (Santa Teresa Boulevard).

Many orchards were no longer visible on both sides of Monterey Highway south of Miramonte Avenue due to development of apparent residences and nurseries.

Gravel pits were observed to be enlarged southwest of the golf course; water filled pits are visible at the gravel extraction area.

1993: The 1993 black and white aerial photographs at a nominal scale of 1-inch equals 666 feet were taken by the U. S. Geological Survey. Changes apparent from the previous photographs include the following.

Highway 101 has been completed. Scheller Avenue interchange is under construction.

The PG&E substation has been expanded to the northwest.

Santa Teresa Boulevard has been expanded to two lanes north of Bailey.

A structure of unknown use is visible on the north side of Bailey Avenue between Santa Teresa Boulevard and Monterey Highway. Apparent warehouses are visible at Coyote on the east side of Monterey Highway.

Additional development is visible east of Monterey Highway and south of Coyote Creek Golf Course; along the foothills southwest of Santa Teresa Blvd. between Kalana Avenue and San Bruno Avenue. A trailer park is visible east of Monterey Highway opposite San Bruno Avenue.

Nurseries and greenhouses are visible between Monterey Highway and Dougherty Avenue, south of San Bruno Avenue.

2001: The color aerial image at a nominal scale of 1 inch equals 600 feet, designated Coyote Valley Comprehensive Aerial Exhibit, was prepared by HMM Engineers from photographs taken in March 2001. Changes apparent from the previous photographs include the following.

The Scheller Avenue interchange has been completed.

Structures along Monterey Highway approximately 1,400 feet south of Bailey are no longer visible.

Nursery/greenhouses on the south side of Laguna have a different configuration.

Structures along the north side of Richmond Avenue are no longer visible.

The golf course has expanded to the northeast to Highway 101, and to the east side of Highway 101 as far south as Scheller Avenue.

3.2 History of Pesticide Use

We contacted the Santa Clara County Agricultural Commissioner's office to enquire about the history of pesticide and herbicide use at the site. Specifically, we requested information about records that would show how much DDT and other pesticides were applied in the Specific Plan location. DDT has not been registered for use in California since it was banned in 1972. Until 1971, use of DDT was not required to be reported; therefore, no detailed records exist. The California Department of Pesticide Regulation used to compile data on use of pesticides, herbicides, and fertilizers by grower, but not by area; data are available for the last two years only, and the data is not being compiled any more (Stan Maggi, Santa Clara County Agricultural Commissioner's office, personal communication, September 8, 2003). Therefore, no data on pesticide use is available for the area.

DDT use began in California around 1944 for controlling agricultural pests, cockroaches in residences, abating mosquitoes in neighborhoods, etc. DDT was declared a restricted material by the California Department of Food and Agriculture in 1963. 1970 was the last year in which substantial quantities of DDT were applied to crops in California. DDT containing wastes require special handling and disposal when it exceeds a concentration of 1.0 ppm. Other pesticides and herbicides, such as lead arsenate, dieldrin, endosulfan, endrin, amongst others, also were likely applied to the fields and orchards, and various concentrations are likely to be found in the soil.

4.0 REGULATORY AGENCY DATABASE REPORT

During this study, a regulatory agency database report was obtained and reviewed to help establish whether contamination incidents have been reported within the Coyote Valley Specific Plan area and at nearby facilities. A list of the database sources reviewed, a detailed description of the sources, and a radius map indicating the location of the reported facilities relative to the project area are presented in Appendix B.

The radius report listed numerous facilities within the Coyote Valley Specific Plan area that were users of hazardous materials and/or generators of hazardous wastes. Only those deemed to be significant with respect to impact to the area are presented in summary form in Table 2. The table also describes observations performed during the site reconnaissance pertaining to the listed facilities.

More complete information regarding the spills and releases in Table 2 is presented in the radius report, as is information on other listed facilities not included in the table. No off-site hazardous materials releases appearing likely to significantly impact the site were reported in the vicinity.

Documented and potential hazardous materials user locations are presented on Figure 2.

Table 2. Potential Hazardous Materials Concerns

Facility	Map ID No.	Address	Potential Concern Based on Database Report	Site Reconnaissance Observations
United Technologies	5	Station 635 and Station 706	Facility listed on CERCLIS and FINDS databases indicating site of potential concern regarding presence of hazardous materials; no further information available.	Not observed at time of site visit (likely miss mapped in the database report)
PG&E Substation	6	150 Metcalf Road	Fuel LUST/SLIC site impacting soil - case closed in June 1993 but residual contamination may remain in soil. Hazardous materials user and/or hazardous waste generator.	PG&E construction yard and substation observed; visible fuel pump at construction yard.
PG&E	7	100 Metcalf Road	Hazardous materials user and/or hazardous waste generator. AST present on-site.	PG&E construction yard and substation observed; visible fuel pump at construction yard.
Frost Farms	9	8194 Monterey Road	Fuel LUST impacting soil and ground water - case closed in November 1996 but residual contamination may remain in soil and ground water.	Facility name not observed at time of site visit. Based on mapped database location, likely on current Coyote Ranch property.
DJP Agriculture Supply Co.	10	611 Blanchard Road	UST historically present on-site, may currently be present.	Not accessible at time of site visit; visible residences from Blanchard Road.
Universal Gas	11	8125 Monterey Road	Fuel LUST impacting soil - case closed April 2001 but residual contamination may remain in soil.	Current location of MotorShop, a Harley Davidson parts, servicing, and repair shop.
Joe's Gas, Bait and Tackle	11	8145 Monterey Road	Numerous reported fuel LUSTs impacting soil and ground water - cases appear closed by January 1997 but residual contamination may remain in soil and ground water. Hazardous materials user and/or hazardous waste generator. USTs historically present on-site, may currently be present.	Observed as current liquor store. No fuel pump observed.
---	11	8149 Monterey Road	Stained soil beneath cutting dock of railroad tracks; releases reportedly occurred over 10-year period.	Not observed at time of site visit.
Steve Klesitz Abandoned Service Station	11	101 Monterey Road	Hazardous materials user and/or hazardous waste generator. AST present on-site.	Not observed at time of site visit. Based on mapped database location, property likely currently in use for commercial purposes.

(continued)

Table 2. Potential Hazardous Materials Concerns
(continued)

Facility	Map ID No.	Address	Potential Concern Based on Database Report	Site Reconnaissance Observations
Pacific Bell	12	205 Bailey Avenue	AST present on-site.	Facility name not observed at time of site visit. Observed commercial property with apparent water tank visible at property. Property observed west of Santa Teresa Blvd. (Incorrectly mapped in database report)
Pacific Bell	13	451 Bailey Avenue	Hazardous materials user and/or hazardous waste generator. UST historically present on-site, may currently be present.	Not observed at time of site visit. Based on mapped database location, property currently vacant.
Unocal	14	510 Bailey Road	Fuel LUST- case closed November 1996 but residual contamination may remain.	Not observed at time of site visit. Based on mapped database location, property currently vacant.
IBM	15	555 Bailey Road	Hazardous materials user and/or hazardous waste generator.	Observed industrial/R&D property.
Ivan Scorsur	16	510 Dougherty Avenue	USTs historically present on-site, may currently be present.	Observed residential property.
The Fuzz Farm, Inc.	16	539 Dougherty Avenue	USTs historically present on-site, may currently be present.	Facility name not observed at time of site visit. Based on mapped database location, property observed in use as a residence.
Albert Aquilar Jr./Aquilar Trucking	16	535 Dougherty Avenue	UST historically present on-site, may currently be present. Hazardous materials user and/or hazardous waste generator. AST present on-site. Fuel LUST impacting soil - case closed June 1996 but residual contamination may remain in soil.	Facility name not observed at time of site visit. Based on mapped database location, property observed in use as a residence. Storage building, storage yard, and large trucks visible to rear of residence.
Richard De Leeuw	16	517 Dougherty Avenue	USTs historically present on-site, may currently be present.	Observed residential property.
Kirby Canyon Landfill	17	Scheller Avenue at Highway 101	Class III landfill accepting non-hazardous solid waste.	Landfill observed off-site, east of State Highway 101.
Louis Romano	18	Richmond Avenue	UST currently present on-site.	Observed nursery and storage structures.
Riverside Golf Course	19	9770 Monterey Road	Fuel LUST impacting soil - case closed December 1990 but residual contamination may remain in soil.	Observed Coyote Creek Golf Club entrance.

(continued)

Table 2. Potential Hazardous Materials Concerns
(continued)

Facility	Map ID No.	Address	Potential Concern Based on Database Report	Site Reconnaissance Observations
Bonner Packing Co.	20	550 Monterey Road	Fuel LUST impacting soil – case closed April 2001 but residual contamination may remain in soil.	Facility name not observed at time of site visit. Based on mapped database location, property currently in use for commercial purposes.
Grandy Residence	23	195 Scheller Avenue	UST historically present on-site, may currently be present. Fuel LUST impacting soil – case closed August 1991 but residual contamination may remain in soil.	Observed residential property.
Aita Nursery	24	9825 Dougherty Drive	UST historically present on-site, may currently be present.	Facility name not observed at time of site visit. Apparently currently in use as nursery facility. Observed south of Kalana Avenue.
James Masuda	25	Corner of Palm/Lance	Hazardous materials user and/or hazardous waste generator.	Observed residence.
Bonner Packing/ Parkway Lanes	26	100 Ogier Avenue	Fuel LUST impacting soil – case closed January 1991 but residual contamination may remain in soil.	Observed Parkway Lanes RV park. Observed propane tank. Fuel pumps not visible at time of site visit.
Filice Estates Vineyards	27	10270 Monterey Road	Fuel LUST impacting soil – case closed December 1989 but residual contamination may remain in soil.	Facility name not observed at time of site visit. Based on mapped database location, property currently in use as a vineyard.
Rainbow Press	28	19715 Hale Avenue	Hazardous materials user and/or hazardous waste generator.	Due to wooden fence, facility was not visible at time of site visit. Based on observations, current property address is 9935 Hale Avenue.
Woodcrafting	28	19715 Hale Avenue	Facility listed on FINDS database indicating site of potential concern regarding presence of hazardous materials; no further information available.	Due to wooden fence, facility was not visible at time of site visit. Based on observations, current property address is 9935 Hale Avenue.
---	29	Dougherty Avenue/San Bruno Avenue	Former drug lab with associated hazardous materials removed and disposed.	Not observed at time of site visit. Based on mapped database location, facility likely formerly located at current residence or nursery.

(continued)

Table 2. Potential Hazardous Materials Concerns
(continued)

Facility	Map ID No.	Address	Potential Concern Based on Database Report	Site Reconnaissance Observations
Tilton Ranch	30	19665 Hale Avenue	USTs historically present on-site, may currently be present.	Due to wooden fence, facility was not visible at time of site visit. Based on observations, current property address is 9935 Hale Avenue.
Roy Kikunaga	31	RR 2. Box 542 B Miramonte Avenue	UST historically present on-site, may currently be present.	Apparent residence, located adjacent to nursery.
Muriel, Winfield, and Norma Johnson	32	10369 Dougherty Avenue	Hazardous materials user and/or hazardous waste generator.	Based on mapped database location, property currently in use as a residence.
Inland Truss North, LLC	33	10384 Dougherty Avenue	Hazardous materials user and/or hazardous waste generator.	Observed lumberyard.
Sierra Precast, Inc.	34	1 Live Oak Avenue	Hazardous materials user and/or hazardous waste generator. Fuel LUST impacting soil – case closed April 1996 but residual contamination may remain in soil.	Observed pre-cast concrete facility.
Recreational Vehicle Services, Inc.	35	10900 Monterey Road	Hazardous materials user and/or hazardous waste generator.	Observed commercial property for sales and servicing of recreational vehicles. Observed south of Madrone Avenue.
Former Hudson Gas Station	36	10950 Monterey Highway	Gas LUST impacting soil and ground water from February 1988 release.	Observed shack/former gas station. Fuel pump or island not observed.
Wheeler Transportation	37	10492 Dougherty Avenue	Hazardous materials user and/or hazardous waste generator.	Facility name not observed at time of site visit. Observed car garage/shop.
Madrone Closed Landfill Site	38	2500 feet northeast of Kirby/Nicholis Streets	Closed solid waste landfill.	Not observed at time of site visit. Based on mapped database location, facility located off-site.
G&K Farms of California	39	280 Live Oak Avenue	USTs historically present on-site, may currently be present.	Apparent residence and surrounding farmland.
Hallmark Equipment Co.	41	11040 Monterey Highway	Hazardous materials user and/or hazardous waste generator.	Apparent commercial property. Observed storage yard for large parts and ASTs.
Redwood Empire, Inc.	42	10 Madrone Avenue	Fuel LUST impacting soil – case closed January 1996 but residual contamination may remain in soil.	Observed lumberyard.
Kawahara Nursery	43	698 Burnett Avenue	Hazardous materials user and/or hazardous waste generator. AST currently present on-site. Surface release of ammonia urea during structure fire.	Not observed at time of site visit. Based on address and mapped database location, facility located off-site.

(continued)

Table 2. Potential Hazardous Materials Concerns
(continued)

Facility	Map ID No.	Address	Potential Concern Based on Database Report	Site Reconnaissance Observations
Frank Fujita Farms	44	528 Live Oak Avenue	Fuel LUST impacting soil – case closed June 1996 but residual contamination may remain in soil. Active UST present on-site. USTs historically present on-site, may currently be present.	Apparent residence and associated farmland.
Emily Fantozzi Trust	44	526 Live Oak Avenue	Hazardous materials user and/or hazardous waste generator.	Address not observed at time of site visit. Based on mapped database location, apparent residence and associated farmland.
Tellez Property	44	545 Live Oak Avenue	Fuel LUST impacting soil – case closed November 1990 but residual contamination may remain in soil.	Address not observed at time of site visit. Based on mapped database location, apparent residence and associated farmland.
Pensina Brothers Live Oak Farms	44	547-A Live Oak Avenue	UST historically present on-site, may currently be present.	Address not observed at time of site visit. Based on mapped database location, apparent residence and associated farmland.
Foster Group Partnership	45	9605 Monterey Highway	Fuel LUST impacting soil – case closed January 1996 but residual contamination may remain in soil.	Facility name not observed at time of site visit. Based on mapped database location, property in use for commercial purposes.
Yuba San Jose, Inc.	47	2000 Monterey Highway	Reported disposal of contaminated soil from site cleanups.	Facility name not observed at time of site visit. Facility at 2000 Monterey Highway observed as Land & Sea, an apparent used cars, boats, and farm machinery sales lot.

5.0 SOIL QUALITY EVALUATION

Prior to the commencement of soil sampling field activities, letters requesting land-access were submitted by the Planning Department of the City of San Jose to land-owners in the North Coyote Campus Industrial Area and Coyote Valley Urban Preserve. Soil sampling was conducted only on parcels where access from the owners was obtained. Response by owners for the North Coyote Campus Industrial Area was limited, and soil samples were collected for only a limited portion of this area. Soil sampling locations are shown on Figure 2.

Analytical results of soil samples collected during limited environmental site assessments (ESAs) in the North Coyote Valley Campus Industrial area by All West (1997), Kleinfelder (2001), and TRC Lowney (2002) were used to help characterize the soil quality in the North Coyote Valley Campus zone. The results are summarized below and in Tables 5 through 7, and in Appendix E of this report.

Previous soil sampling was conducted by All West on November 5 and 7, 1997, in a parcel located at the southwest intersection of Monterey Highway and Bailey Avenue. The sampling locations are shown on Figure 2. Analytical results of samples collected at shallow depths ($\frac{1}{2}$ to $4\frac{1}{2}$ feet) detected minor concentrations of pesticides (DDD, DDE, DDT, dieldrin, and endosulfan), petroleum hydrocarbons (gasoline and motor oil range), and metals (arsenic, lead, and mercury). One soil sample contained diesel and motor oil range petroleum hydrocarbons above the residential Environmental Screening Level (ESL). Arsenic was also detected at the surface to $\frac{1}{2}$ foot depth above the residential ESL, but within typical Bay Area background concentrations.

Sampling done by Kleinfelder on August 11 and 13, 2001 and TRC Lowney on April 11, 2002 in a parcel adjacent to the northwest and southwest of Santa Teresa Boulevard also detected minor levels of pesticides (DDD, DDE, DDT, and dieldrin). Toxaphene was detected in all soil borings at levels exceeding the direct exposure residential ESL of 0.046 ppm. The results of both sampling events are presented in Appendix D.

Based on historical agricultural usage throughout the valley, as well as ESAs mentioned above, sample locations were chosen within each area to evaluate general soil quality.

5.1 Soil Sample Collection and Analyses

To evaluate soil quality, the soil samples from agricultural areas were analyzed for organochlorine pesticides and pesticide associated metals (arsenic, lead, and mercury); from rail-road tracks for petroleum hydrocarbons, and polychlorinated biphenyls; and from the school sites for naturally occurring asbestos. Soil sampling activities were conducted from August 5, 2005 through August 16, 2005 by our staff geologist, Andrew Matthew, under the direction of Leonardo Alvarez (Senior Project Geologist) and in coordination with Ms. Judy Fennerty (Project Manager, David J. Powers & Associates).

Analytical results of soil and ground water samples were compared to the Environmental Screening Level (ESL) concentrations in a residential land use setting (San Francisco Bay Regional Water Quality Control Board, 2005). ESLs are considered conservative. As stated by the Water Board, the ESLs are not a regulatory "cleanup standard". The presence of a chemical at a concentration exceeding an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring; exceeding ESLs indicates that the potential for impacts may exist and that additional evaluation may be needed.

Soil sample locations were recorded using a hand-held GIS data collection system (GeoExplorer II). The latitude and longitude for each sample location were recorded to facilitate relocation of sample points should further delineation/characterization of soils in a given parcel be necessary. For locations where satellite coverage was insufficient (due to building or tree obstructions), latitude and longitude positions were estimated using on-line GIS resources (Google Earth, www.earth.google.com).

5.1.1 Agricultural Areas

Sixty-three soil samples were collected from the ground surface to a depth of $\frac{1}{2}$ foot from selected agricultural sites and analyzed for organochlorine pesticides (EPA Test Method 8081), and pesticide associated metals (arsenic, lead, mercury) (EPA Test Method 8081). These analyses were selected to help evaluate the impact of historical agricultural practices across the site and provide general information on the

distribution of pesticide-impacted soils. Soil sampling protocols are included in Appendix C.

Analytical results for soils evaluated for organochlorine pesticides and pesticide associated metals are presented in Table 3. Copies of the analytical reports and chain of custody documentation are presented in Appendix D. Sample locations are shown on Figure 2. Samples were identified with a letter and number designation corresponding to the identification number assigned to each parcel, as shown in the parcel listing included in Appendix E.

Table 3. Analytical Results of Soil Samples- Agricultural Areas
Organochlorine Pesticides and Related Metals
(concentrations in mg/Kg, or parts per million)

Sample ID	Latitude	Longitude	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Total DDT	Arsenic	Lead	Mercury
M-25	37.2155209	-121.7380896	<0.002	<0.002	0.023	0.021	0.044	6.5	38	0.2
M-26	37.21384465	-121.7348924	<0.002	<0.002	0.049	0.016	0.065	6.7	11	<0.1
M-40A	37.21205686	-121.7294003	<0.002	<0.002	0.012	0.006	0.018	3.5	16	0.18
M-40B	37.21105977	-121.7291168	<0.002	<0.002	0.067	0.028	0.095	7	15	0.1
M-41	37.21008208	-121.7322066	<0.002	<0.002	0.076	0.041	0.117	6.2	32	<0.1
M-59	37.20193956	-121.721675	<0.002	<0.002	2.5	0.35	2.85	8.5	16	<0.1
N-31A	37.19741719	-121.7281364	<0.002	<0.002	0.19	0.078	0.268	4.9	13	<0.1
N-31B	37.19492509	-121.7317145	<0.002	0.011	0.23	0.074	0.315	4.8	15	<0.1
N-32	37.19781306	-121.7347002	<0.002	0.017	0.13	0.076	0.223	<1.67	12	<0.1
N-5	37.21588509	-121.7414354	0.019	<0.002	0.076	0.039	0.115	4.8	14	0.17
M-106	37.1846242	-121.7055483	<0.002	<0.002	0.2	0.084	0.284	5	23	0.65
M-125	37.1906346	-121.7326772	<0.002	<0.002	0.78	0.2	0.98	2.3	8.5	<0.1
M-141	37.19065843	-121.7318118	<0.002	<0.002	0.43	<0.002	0.43	<1.67	9.9	<0.1
M-144A	37.18890515	-121.7342545	<0.002	<0.002	0.36	0.31	0.67	2.4	6.9	<0.1
M-144B	37.18600459	-121.7381165	<0.002	<0.002	0.28	0.056	0.336	<1.67	8.5	<0.1
M-54	37.2043634	-121.724289	<0.002	<0.002	0.074	0.056	0.13	7.9	16	<0.1
M-77	37.19365571	-121.7147427	<0.002	<0.002	0.53	0.28	0.81	7.7	9.7	<0.1
M-82	37.19191563	-121.7098523	<0.002	<0.002	0.64	0.33	0.97	8.6	27	<0.1
N-27B	37.20358446	-121.7323933	<0.002	0.0048	0.22	0.045	0.2698	8.6	14	<0.1
N-29	37.20148161	-121.7321252	<0.002	<0.002	0.12	0.046	0.166	6.7	13	0.28
N-30B	37.20007805	-121.7277337	<0.002	<0.002	0.058	0.019	0.077	11	12	0.28
N-30C	37.19772229	-121.7313166	<0.002	<0.002	0.061	0.022	0.083	5.9	12	<0.1
M-123	37.19428911	-121.731379	<0.002	<0.002	0.4	0.045	0.445	4.4	12	0.18
M-139	37.19298799	-121.7273523	<0.002	<0.002	0.37	<0.002	0.37	4.8	13	0.15
M-140	37.19150363	-121.7297926	<0.002	<0.002	0.41	0.062	0.472	5.8	11	0.17
M-148	37.1930458	-121.716774	<0.002	<0.002	0.22	0.22	0.44	3.8	11	0.17
M-149A	37.18899141	-121.722167	<0.002	<0.002	0.35	0.33	0.68	4.6	12	0.18

(continued)

Table 3. Analytical Results of Soil Samples- Agricultural Areas
 Organochlorine Pesticides and Related Metals
 (concentrations in mg/Kg, or parts per million)
 (continued)

Sample ID	Latitude	Longitude	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Total DDT	Arsenic	Lead	Mercury
M-149B	37.18711669	-121.7250221	0.046	0.06	0.27	0.17	0.5	4.8	9.7	0.18
M-158	37.18784521	-121.7203135	<0.002	<0.002	0.78	0.12	0.9	6	13	0.17
M-159A*	37.187478	-121.722736	<0.002	<0.002	0.58	0.092	0.672	4	13	0.18
M-159B*	37.187039	-121.722364	<0.002	<0.002	0.046	0.0055	0.0515	3.8	9.2	0.23
M-159C*	37.186628	-121.721889	<0.002	<0.002	0.27	0.062	0.332	4.1	9.8	0.23
M-159D*	37.187750	-121.722269	<0.002	<0.002	0.47	0.042	0.512	5.1	14	0.13
M-159E*	37.187456	-121.721822	<0.002	<0.002	0.69	0.19	0.88	4.3	13	0.12
M-159F	37.18594833	-121.7211836	<0.002	<0.002	1.3	0.55	1.85	4.8	18	0.22
M-159G	37.18783142	-121.7219555	<0.002	<0.002	1.1	0.36	1.46	5.7	13	0.15
M-159H*	37.188197	-121.720992	<0.002	<0.002	0.53	0.12	0.65	4.3	13	0.13
M-159I*	37.187519	-121.720275	<0.002	<0.002	0.64	0.16	0.8	5.5	14	0.15
M-154	37.18261409	-121.7309646	<0.002	0.0072	0.011	0.0083	0.0265	<1.67	13	<0.1
M-157A ¹	37.19138311	-121.7176297	<0.002	<0.002	0.014	0.023	0.037	3.4	11	<0.1
M-157B ²	37.18967523	-121.719916	<0.002	<0.002	0.016	0.027	0.043	4.6	10	<0.1
M-203A	37.18530482	-121.7077828	<0.002	<0.002	0.01	0.0049	0.0149	3.4	11	<0.1
M-203B	37.18279204	-121.7096461	<0.002	<0.002	0.0067	<0.002	0.0067	3.8	10	<0.1
M-203C	37.1839494	-121.7073714	<0.002	<0.002	0.024	<0.002	0.024	<1.67	11	<0.1
M-203D	37.18344616	-121.7070027	<0.002	<0.002	0.025	0.015	0.04	4.8	10	<0.1
M-207	37.1830459	-121.7127024	0.013	<0.002	0.059	0.014	0.073	3.5	12	<0.1
M-208	37.18261647	-121.7120059	0.023	0.0035	0.091	0.033	0.1275	5.7	16	<0.1
M-238	37.17599369	-121.7228963	<0.002	<0.002	0.055	0.006	0.061	<1.67	11	<0.1
M-98A	37.18683357	-121.7084663	<0.002	<0.002	0.097	0.013	0.11	6.5	21	<0.10
M-153	37.183414	-121.729989	<0.002	<0.002	0.096	0.0087	0.1047	<1.67	10	0.12
M-162 ³	37.183158	-121.729533	<0.002	<0.002	0.082	0.0056	0.0876	<1.67	11	0.1
M-163	37.182272	-121.731064	<0.002	<0.002	0.011	<0.002	0.011	<1.67	12	<0.1
M-187	37.184075	-121.721969	<0.002	<0.002	0.042	<0.002	0.042	2.3	12	<0.1
M-190	37.182842	-121.723622	<0.002	<0.002	0.072	<0.002	0.072	2	<0.368	<0.1
M-191A	37.176861	-121.726761	<0.002	<0.002	0.13	0.0094	0.1394	<1.67	10	0.63
M-191B	37.176861	-121.728575	<0.002	<0.002	0.17	0.021	0.191	<1.67	11	0.45
M-236	37.177517	-121.716839	<0.002	<0.002	0.045	0.0077	0.0527	<1.67	9.5	<0.1
M-237A	37.179744	-121.721022	<0.002	<0.002	0.048	<0.002	0.048	<1.67	10	<0.1
M-241	37.171992	-121.724736	<0.002	<0.002	<0.002	<0.002	<0.002	1.9	12	<0.1
M-243A	37.171753	-121.729283	<0.002	<0.002	<0.002	<0.002	<0.002	3.9	12	0.3
M-243B	37.171033	-121.733081	<0.002	<0.002	0.017	<0.002	0.017	<1.67	16	0.77

(continued)

Table 3. Analytical Results of Soil Samples- Agricultural Areas
 Organochlorine Pesticides and Related Metals
 (concentrations in mg/Kg, or parts per million)
 (continued)

Sample ID	Latitude	Longitude	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Total DDT	Arsenic	Lead	Mercury
M-35	37.212553	-121.732997	<0.002	0.0055	0.15	0.053	0.2085	4.1	15	0.28
N-35	37.194483	-121.745289	<0.002	<0.002	0.099	0.48	0.579	<1.67	5.6	<0.1
Residential ESLs⁴			0.034	2.3	1.6	1.6	NE	5.5	150	3.7

NOTES:**BOLD**

Concentration meets or exceeds ESLs

* Estimated latitude/longitude positions (coverage not available due to satellite obstruction)

< Indicates that the compound was not detected at or above the stated laboratory detection limit

¹ alpha-Chlordane detected at 0.0093 ppm; gamma-Chlordane detected at 0.0062 ppm; and Toxaphene detected at 0.26 ppm in sample M-157A² alpha-Chlordane detected at 0.013 ppm; gamma-Chlordane detected at 0.008 ppm; and Toxaphene detected at 0.32 ppm in sample M-157B³ Toxaphene detected at 0.21 ppm in sample M-162⁴ Residential Environmental Screening Level (ESL) – RWQCB, February 2005

NE Not Established

5.1.2 Railroad

Six soil samples collected from accessible agricultural sites along the Southern Pacific Railroad track were analyzed for total petroleum hydrocarbons in the gasoline range (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) (EPA Test Method 8015/8020); total petroleum hydrocarbons in the diesel range and motor oil range (TPHd, TPHo) with a silica gel clean-up (EPA Test Method 8015M); polychlorinated biphenyls (PCBs) (EPA Test Method 8082); organochlorine pesticides (EPA Test Method 8081), and pesticide related metals (arsenic, lead, mercury) (EPA Test Method 8081). These analyses were selected to help evaluate the impact to soils by historical chemical treatment for weed and dust control, as well as for pest control. Soil samples were generally collected within 10 feet of the rail road tracks from the upper ½ foot of soil. Soil sampling protocols are included in Appendix C.

The extracts from the soil samples were passed through a silica gel column prior to the TPHd analysis (EPA Test method 8015) to help remove non-fuel hydrocarbons. The silica gel removes oxygenated organic compounds produced by biologic degradation of organic materials. Studies have shown that the silica gel filter does not significantly remove extractable range petroleum hydrocarbons, including diesel, because the petroleum hydrocarbons are composed of non-polar substances. Performing the silica gel filtration prior to analysis is valuable in evaluating whether diesel and motor oil range hydrocarbons are present in soils, as the application of herbicides along the railroad corridor can result in the increase of organic materials associated with the degradation of plant material (killed by the herbicides). These organic materials contain significant concentrations of naturally-occurring hydrocarbons that can be detected in the EPA 8015 analysis and can be falsely quantified by the laboratory as diesel.

Analytical results are presented in Tables 3A, 3B, and 3C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D. Sample locations are shown on Figure 2.

Table 3A. TEPH, PCBs, MTBE & BTEX- Railroad
(concentrations in mg/Kg, or parts per million)

Sample ID	Latitude	Longitude	TPHg	TPHd	TPHo	PCBs	BTEX	MTBE
N-1	37.2200935	-121.7445071	<0.1	2.28	33.5	ND	<0.01	<0.01
N-31C	37.2014267	-121.724146	<0.1	<2.0	17.2	ND	<0.01	<0.01
N-27A	37.2060662	-121.7288991	<0.1	<2.0	55.6	ND	<0.01	<0.01
N-30A	37.2038413	-121.7266429	<0.1	<2.0	12.1	ND	<0.01	<0.01
M-147	37.1942641	-121.7168147	<0.1	<2.0	19.2	ND	<0.01	<0.01
M-203E	37.1849254	-121.7072817	<0.1	<2.0	8.73	ND	<0.01	<0.01
Residential ESLs ¹			400	400	1,000	0.22	--	2

Table 3B. Organochlorine Pesticides- Railroad
(concentrations in mg/Kg, or parts per million)

Sample ID	Latitude	Longitude	Dieldrin	4,4'-DDD	4,4'-DDE	4,4'-DDT	Total DDT
N-1	37.2200935	-121.7445071	<0.002	<0.002	0.19	0.074	0.264
N-31C	37.2014267	-121.724146	<0.002	<0.002	0.027	0.027	0.054
N-27A	37.2060662	-121.7288991	<0.002	<0.002	0.05	0.1	0.15
N-30A	37.2038413	-121.7266429	<0.002	<0.002	0.017	0.02	0.037
M-147	37.1942641	-121.7168147	<0.002	<0.002	0.025	0.05	0.075
M-203E	37.1849254	-121.7072817	<0.002	<0.002	0.023	0.026	0.049
Residential ESLs ¹			0.034	2.3	1.6	1.6	1.6

Table 3C. Pesticide Related Metals- Railroad
(concentrations in mg/Kg, or parts per million)

Sample ID	Latitude	Longitude	Arsenic	Lead	Mercury
N-1	37.2200935	-121.7445071	5.8	16	0.27
N-31C	37.2014267	-121.724146	28	22	<0.1
N-27A	37.2060662	-121.7288991	49	69	0.8
N-30A	37.2038413	-121.7266429	64	24	0.15
M-147	37.1942641	-121.7168147	47	24	0.3
M-203E	37.1849254	-121.7072817	16	15	<0.1
Residential ESLs ¹			5.5	150	3.7

NOTES:

BOLD Concentration meets or exceeds ESL

ND Concentrations for all PCBs below laboratory detection limits (non detect); reported as ND due to difference detection limits for PCBs

< Indicates that the compound was not detected at or above the stated laboratory detection limit

¹ Residential Environmental Screening Level (ESL) – RWQCB, February 2005

5.1.3 Roadways

Thirteen soil samples collected along highways were analyzed for total lead (EPA Test Method 6010/7000). Seven soil samples were collected along Monterey Highway, and six soil samples were collected along Santa Teresa Boulevard. Soil samples were generally collected within 15 feet of the current roadways, and were collected from the upper ½ foot of soil. These analyses were selected to evaluate the impact of aerially deposited lead associated with the historical usage of leaded gasoline.

Analytical results of soils tested for total lead are presented in Table 4. Soil sampling protocols are included in Appendix C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D. Sample locations are shown on Figure 2.

Table 4. Analytical Results of Soil Samples- Roadways
Total Lead
(concentrations in mg/Kg, or parts per million)

HIGHWAY	Sample ID	Latitude	Longitude	Total Lead
Monterey	M-41	37.2100821	-121.7322066	6.2
	M-108	37.1827258	-121.7041545	57
	M-76*	37.194286	-121.715397	55
	M-55	37.2034306	-121.7256003	130
	M-85	37.1904866	-121.7121823	71
	M-98B	37.1865964	-121.7081219	44
	M-34	37.212192	-121.734503	72
Santa Teresa	N-32	37.1978131	-121.7347002	12
	N-28*	37.200631	-121.735450	11
	N-31D	37.193508	-121.733894	12
	M-151	37.1865771	-121.7270317	14
	M-190	37.182842	-121.723622	<0.368
	M-237B	37.1776	-121.718067	19
Residential ESL ¹				150

NOTES:

< Indicates that the compound was not detected at or above the stated laboratory detection limit

* Estimated latitude/longitude positions (coverage not available due to satellite obstruction)

¹ Residential Environmental Screening Level (ESL) – RWQCB, February 2005

5.1.4 School Sites

Eight soil samples collected from the ground surface to a depth of ½ foot from proposed school sites were analyzed for asbestos by transmission electron microscopy (TEM) (EPA Method 600/R-93/116). This analysis was selected to help evaluate the presence of naturally occurring asbestos (NOA) in areas where school sites are proposed, in conformance with Department of Toxic Substances Control (DTSC) guidance for school sites (DTSC, 2004).

NOA is classified as a hazardous substance under both federal (CERCLA) and state (California Health and Safety Code, Hazardous Substance Account Act, Chapter 6.8) regulations. Based on these regulations, the California Department of Toxic Substances Control (DTSC) requires response actions at existing or prospective school sites where NOA has been identified. For schools requiring state funding, the Education Code (Sections 17210 et seq., amended since January 2000) mandates that school districts complete environmental assessments and cleanups. DTSC evaluates these assessments and cleanups, and requires mitigation or remediation for protection of human health and the environment. The DTSC requires that mitigative response action be taken if the concentration of NOA in soils at the proposed school site exceeds 0.001% (based on transmission electron microscopy [TEM] analyses). The response action may include bringing in clean fill or other barriers to mitigate potential NOA exposures.

Analytical results are presented in Table 5. Soil sampling protocols are included in Appendix C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D. Sample locations are shown on Figure 2.

Table 5. Analytical Results of Soil Samples- School Sites
Naturally Occurring Asbestos
(concentrations presented as weight %)

Sample ID	Latitude	Longitude	Chrysotile	Amphibole
M-144A	37.1889052	-121.734254	0.0044	<0.0001
M-144B	37.1860046	-121.738117	<0.0001	<0.0001
M-59*	37.202594	-121.721256	0.001	<0.0001
N-31B*	37.195122	-121.731783	<0.0001	<0.0001
M-139	37.192988	-121.727352	<0.0001	<0.0001
M-157B	37.1896752	-121.719916	<0.0001	<0.0001
M-207	37.1830459	-121.712702	0.0028	<0.0001
M-238A	37.176555	-121.723416	<0.0001	<0.0001
M-189A	37.183077	-121.722088	0.0035	<0.0001
M-60A	37.1674916	-121.722314	0.0048	<0.0001
M-190	37.182842	-121.723622	0.0049	<0.0001
DTSC NOA screening level¹			0.001	0.001

NOTES:

BOLD Concentration meets or exceeds screening level

< Indicates that the compound was not detected at or above the stated laboratory detection limit

* Estimated latitude/longitude positions (coverage not available due to satellite obstruction)

¹ Department of Toxic Substances Control (DTSC) Interim Guidance for Naturally Occurring Asbestos at School Sites; rev. 9/29/2004

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Historical Summary

Based on the information reviewed, the Coyote Valley Specific Plan area has been mostly used for agricultural purpose since 1939 and, based on the degree of development observed for that year, that use was likely the same for decades before 1939.

The area was developed mainly with orchards in 1939, with some fields planted with other crops such as oats, alfalfa, etc. Residences associated with the orchard farms were generally sparse in the period before 1965. Residential development has occurred since then mainly in the Coyote Urban Campus and in the southern portion of the Coyote Greenbelt.

6.2 Hazardous Materials Usage

Based on the brief drive-by survey of the Coyote Valley Specific Plan area, we observed residential, agricultural, and commercial developments. Users of significant quantities of hazardous materials appeared to include auto repair/maintenance facilities, green houses, and other light industrial and commercial hazardous materials users.

Summaries of potential hazardous materials users and significant documented hazardous materials spills and releases for the Coyote Valley Specific Plan area were summarized in Tables 1 and 2, respectively, and are presented in the radius report in Appendix B.

6.3 Railroad Tracks

The Southern Pacific tracks extend from the southeast to the northwest across the study area. Impacted soil along the railroad tracks may be present; assorted chemicals historically have been used for dust suppression and weed control along rail lines.

Laboratory analysis of soil samples collected from the six sample locations generally detected low levels of motor oil range petroleum hydrocarbons (TPHo), with ranges in concentration of 8.73 to 55.6 ppm. The highest levels were detected in soil adjacent to the Bailey Road overpass construction area (55.6 ppm in sample M27A). Low levels of diesel range hydrocarbons (TPHd) were detected near the Metcalf Energy Center (2.28 ppm for sample N-1), and were below the laboratory reporting limit in the other soil samples. Gasoline range hydrocarbons (TPHg) were not detected in any of the soil samples. In addition, no polychlorinated biphenyls, BTEX, or MTBE were detected above the laboratory reporting limit in any of the soil samples collected. None of the results exceeded their respective residential ESL.

Soil samples analyzed for organochlorine pesticides contained generally low concentrations of 4,4'-DDE and 4,4'-DDT. Lead and mercury concentrations were also detected in low concentrations and are generally representative of background conditions and did not exceed residential ESL.

Arsenic was detected in concentrations above background concentrations (greater than 20 ppm) in four of the six samples analyzed.

Based on the generally elevated levels of arsenic in the samples collected, we recommend further characterization of the soils adjacent to rail lines for arsenic prior to development in these areas.

6.4 Lead-Based Paint

Older structures and fences were historically commonly painted with lead-based paints. In 1978, the Consumer Product Safety Commission banned the use of lead as an additive in paint. Currently, the U.S. EPA and U.S. Department of Housing and Urban Development are proposing additional lead-based paint regulations. We recommend that a lead survey of the painted surfaces and soil be conducted for buildings older than 1978 to be demolished in the Coyote Valley Specific Plan area. If the lead-based paint is still bonded to the building materials, its removal is not required prior to demolition. It will be necessary, however, to follow the requirements outlined by Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulations (CCR) 1532.1 during demolition activities; these requirements will include employing training, employee air monitoring, and dust control. If the lead based paint is peeling, flaking or blistered, it should be removed prior to demolition. It is assumed that such paint will become separated from the building components during demolition activities; thus, it must be managed and disposed as a separate waste stream.

Any debris or soil containing lead paint or coating in amounts of lead above regulatory thresholds must be disposed at landfills that have acceptance criteria for the waste being disposed, or should be remediated.

6.5 Asbestos

Asbestos-containing materials (ACMs) may be present in older buildings within the Coyote Valley Specific Plan area. If demolition, renovation, or re-roofing of the buildings is under consideration, an asbestos survey must be conducted under National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. In addition, NESHAP guidelines require that all potentially friable ACM be removed prior to building demolition or renovation that may disturb the ACM.

NOA is classified as a hazardous substance under both federal (CERCLA) and state (California Health and Safety Code, Hazardous Substance Account Act, Chapter 6.8) regulations. Based on these regulations, the California Department of Toxic Substances Control (DTSC) requires response actions at existing or prospective school sites where NOA has been identified. For school requiring state funding, the Education Code (Sections 17210 et seq., amended since January 2000) mandates that school districts complete environmental assessments and cleanups. DTSC evaluates these assessments and cleanups, and requires mitigation or remediation for protection of human health and the environment. The DTSC requires that mitigative response action be taken if the concentration of NOA in soils at the proposed school site exceeds 0.001% (based on transmission electron microscopy [TEM] analyses). The response action may include bringing in clean fill or other barriers to mitigate potential NOA exposures.

6.6 Underground Storage Tanks

Our reconnaissance and the database report identified numerous locations where fuels are (or were) stored in underground or above ground tanks. Several UST leaks also were reported that contaminated soil and/or ground water. Although most of the cases opened by the regulatory agencies to manage these releases appear as closed

in the database report, residual contamination may remain in the soil and ground water. Unreported releases also are likely present. Prior to development, we recommend that a thorough environmental site assessment be performed for any parcel to be developed, in order to assist in the identification of potential USTs and other conditions that may have impacted the site. The California Code of Regulations requires that all USTs used for hazardous substances be closed if they are not in use.

6.7 Septic Systems

Many residences and possibly commercial business at the site likely use septic systems for sewage disposal. Disposal of significant quantities of hazardous materials to residential septic systems appears unlikely, however, septic systems at commercial facilities that have used hazardous materials can be sources of contamination. Prior to development, the septic systems should be properly abandoned in accordance with applicable regulations. At facilities where hazardous materials have been used, the collection of soil and/or ground water samples should be considered to evaluate if hazardous compounds may have been improperly disposed.

6.8 Water Supply Wells

Based on the agricultural history of the site, numerous water supply wells likely are present. These wells should be identified and properly abandoned in accordance with applicable regulations if continued use is no longer intended.

6.9 Fill

Fill is being imported to the Coyote Creek Golf Course to create landscaped mounds in the golf course. The fill being imported is required to comply with acceptance criteria that include documentation of the source of the materials. No contaminated soils are accepted at the site.

6.10 Potential Environmental Concerns Within the Site Vicinity

Based on the information obtained during this study, no hazardous material incidents have been reported in the site vicinity that would be likely to significantly impact the site. As is typical to rural and agricultural areas, several facilities in the vicinity, however, were reported as hazardous materials users. If leaks or spills occur at these facilities, contamination could impact the site, depending upon the effectiveness of cleanup efforts.

The two LUSTs identified along Monterey Road nearest the southeastern portion of the Coyote Valley Urban Reserve area are in the Greenbelt area (sites 26 and 27 on Figure 2). Both cases reportedly involved soil contamination and were closed. Soil was remediated and/or the violation was corrected, and both cases were closed by the overseeing agency. Consequently, and because they are at least 2,400 feet from the nearest boundary of the Coyote Valley Urban Reserve, they do not appear to have the potential to affect future residential land uses in that area.

The Kirby Canyon landfill, the entrance to which is identified as site 17 on Figure 2, is an active, large Class III waste disposal facility that does not accept hazardous waste. However, there is a potential concern associated with the relative proximity of this waste disposal facility to the Coyote Valley Urban Reserve. The nearest actual landfill facility is the sedimentation pond that controls runoff from the site and is located in the hillsides approximately 1.1 miles northeast of the nearest boundary of the future residential area. The landfill is lined, has a leachate collection and removal system

which prevents ground water contamination, and has been designed to modern seismic safety standards. Therefore, it is not considered to have a potential impact on future residential land use.

6.11 Agricultural Areas

The presence of total DDT in soils at agricultural sites is well documented in the literature (Edwards and Greenwood, 1973). Average concentrations of 0.20 to 15 ppm of total DDT (the sum of DDD, DDE and DDT) have been reported at agricultural sites where DDT was used. Higher average concentrations have been reported at sites where multiple DDT applications were made each growing season. Within the study area, total DDT concentrations ranged from <0.002 to 2.85 parts per million. DDT concentrations were generally well below the residential ESL. Only DDE exceeded the ESL in one sample collected from parcels 712-18-017 (M-59). In addition Dieldrin exceeded the ESL in one sample collected from parcel 712-21-007 (M-159F). Total DDT concentrations in soil samples collected from Parcel 712-21-007 (samples M-159 A through I) were generally higher outside than samples collected from inside existing greenhouses. In addition, DDE exceeded California's hazardous waste criteria (TTLIC) of 1 ppm in three samples analyzed: M-59, M-159F and M-159G.

Because DDE detected in samples M-59, M-159F and M-159G exceeded California's hazardous waste criteria and one sample (M-59) exceeded the residential ESL of 1.6 ppm, we recommend further characterization of soils in the corresponding parcels prior to proposed development activities. We understand that the agricultural chemicals were applied to the fields and greenhouses using typical farming protocol. This impacted soil, in its current condition, is not considered a waste because it is undisturbed and not in the process of being discarded. This soil does not appear to be a hazardous waste subject to RCRA and/or California regulatory requirements. However, once the soil is excavated for disposal, it could be classified as a hazardous waste. Thus, we recommend further characterization of the soils in these parcels.

Dieldrin was detected in four of the 63 soil samples analyzed but it only exceeded the residential ESL of 0.034 ppm at parcel 712-28-024 (sample M-149B) located north of Richmond Avenue in the mid-development area. Thus, we recommend additional soil characterization in this area prior to development.

Dieldrin was also detected in one sample (B-10) collected in 2001 at a depth of 4.2 to 4.7 feet in the North Coyote Campus Industrial Area (Kleinfelder, 2001). Toxaphene was also detected in 2001 in several soil samples from this area at concentrations ranging from less than 0.08 ppm to 0.33 ppm, exceeding the ESL of 0.046 ppm.

In previous investigations Toxaphene was reported in soil samples collected from the ground surface to as deep as 4.3 to 4.8 feet. We understand that this portion of the North Coyote Campus Industrial Area will not be developed but would be excavated to create a detention basin in the historical location of Laguna Seca. We further understand that the RWQCB has approved the excavation and resulting soil mixing as an acceptable mitigation to reduce contaminant concentrations (Jim Thompson, HMH, personal communication). The detention basin would be filled with storm-water from Fisher Creek.

Based on the analytical results, the concentrations of arsenic, lead, and mercury detected in the surface samples are representative of typical background concentrations of 10 ppm to 20 ppm, 11 ppm, and less than 1 ppm respectively

(Scott 1991, LBNL, 1995). In addition, lead and mercury did not exceed the residential ESLs (150 and 3.7 ppm, respectively).

Due to naturally occurring arsenic in the Bay Area, arsenic concentrations typically exceed the residential ESLs. For this reason, regional background concentrations previously have been accepted by the DTSC for use as a cleanup level. The USEPA Region IX also has recognized this. Because the site-specific range of background concentrations is within the range of regional background (less than 10 ppm), the concentrations of arsenic detected (non-detect to 8.6 ppm) do not appear to pose a concern.

6.12.1 Comparison to California Hazardous Waste Criteria

For some chemicals detected at the site, the California hazardous waste criteria are more stringent than the residential ESLs. A chemical may be present in soil at a level that does not pose a human health risk yet would require soil to be disposed as hazardous waste were the soil to be excavated. For example, existing regulations (22CCR66699) require that excavated soil with total DDT above 1 ppm would have to be managed as hazardous waste because it exceeds the State's TTLC. Total DDT, however, in soil at a concentration up to 1.6 ppm is considered safe by regulatory agencies for residential development.

The apparent contradiction between chemicals in soil that may not pose a health risk to residents and the soil requiring management as a hazardous waste under California law is attributable to several factors. Many of the hazardous waste criteria were developed many years ago and relied on toxicity information and the application of safety factors that do not conform to current data and agency practice. Some of the hazardous waste criteria are based on assumed leaching from a landfill and migration to a surface stream. Many chemicals have been shown to be not as mobile in the environment as had been assumed in the development of TTLCs. Some TTLCs were based on toxicity to fish, not humans, following the assumed leaching from a landfill. Because much of the toxicology and risk assumptions used in the derivation of the existing hazardous waste criteria are out of date and because some are intended to protect fish under assumed conditions of release to a surface water, there is not necessary relationship between the concentration of a chemical that causes soil to be regulated as a hazardous waste and the concentration that is safe for residential use.

Nonetheless, for future developments, to avoid leaving materials at the site that would have to be handled as a California hazardous waste, lead should be remediated to levels such that the concentration of lead waste extraction test (WET) leachate is less than the STLC of 5 ppm and the ESL of 150 ppm. Total DDT should be remediated such that the total soil concentration would be less than 1 ppm and the WET leachate is less than the STLC of 0.1 ppm. Soil with 1 ppm of Total DDT is not expected to fail the WET leachate test but still exceed the California Hazardous Waste Criteria.

6.13 Roadways

Analytical results for lead from soil samples adjacent to Monterey Road and Santa Teresa Boulevard indicate higher levels of total lead in soils along Monterey Road. Average total lead concentrations were 57 ppm along Monterey Road and ranged from 6.2 to 130 ppm. In addition, total DDT concentrations of the samples exceeding 1 ppm, meet or exceed the total threshold limit concentration (TTLC), California's hazardous waste criterion. The total lead concentration of 130 ppm in sample M-59 could exceed California's hazardous waste criteria (STLC of 5 ppm). Average

concentrations along Santa Teresa Boulevard were 12 ppm and ranged from less than 0.368 ppm to 19 ppm. The elevated concentrations of total lead in shallow soils along Monterey Road (compared to along Santa Teresa Boulevard) are likely due to the historical, heavier usage of Monterey Road (lead was discontinued in 1996 as a gasoline additive).

In general, concentrations of total metals exceeding approximately five times their respective Soluble Threshold Limit Concentration (STLC) may indicate that portions of these metals may leach and migrate to underlying ground water. Therefore, it is recommended that additional sampling and analyses of lead be performed prior to development in those areas along Monterey Road where total lead concentrations exceed 50 ppm (the STLC for lead is 5 ppm).

6.14 School Sites

Analytical results for the soil samples collected at proposed school site locations indicate that naturally occurring asbestos (NOA), as Chrysotile, was detected in six of the 11 sampled school sites. NOA concentrations (% by weight) for parcels 712-28-034 (sample M-144A), 712-18-017 (sample M-59), 725-11-010 (sample M-207), 712-13-002 (sample M-189A), 712-19-011 (sample M-60A), and 725-13-003 (sample M-190) were 0.0044%, 0.001%, 0.0028%, 0.0035%, 0.0048% and 0.0049% respectively. The detection of NOA in these six parcels exceeds the DTSC screening criterion for school sites of 0.001%.

The source of the NOA is likely due to weathering of serpentinitic parent material which is ubiquitous in the mountains on both sides of the valley. We recommend further sampling and characterization of the soils in the vicinity of the proposed school locations to delineate the extent of NOA. If suitable locations where NOA concentrations do not exceed DTSC screening levels cannot be determined, DTSC may require mitigative measures including, but not limited to, importing clean fill as a cap for protection of human health and the environment. DTSC will likely require additional sampling for pesticides at the school sites (DTSC, 2002).

6.15 Urban Runoff Pollution Prevention Program

The Urban Runoff Pollution Prevention Program, also called the Non-Point Source Program, was developed in accordance with the requirements of the 1986 San Francisco Bay Basin Water Quality Control Plan to reduce water pollution associated with urban storm water runoff. This program was also designed to fulfill the requirements of the Federal Clean Water Act, which mandated that EPA develop National Pollution Discharge Elimination system (NPDES) Permit application requirements for various storm water discharges, including those from municipal storm drain systems and construction sites.

6.16 Environmental Insurance

As with many construction projects, contaminated materials may be encountered during the site development. Consideration could be given to purchasing insurance to help protect against these liabilities. There are two primary insurance policies that provide significant protection against environmental liability risks:

- Pollution Legal Liability protects against third party claims for personal injury and property damage, and related risks;

- Cleanup Cost-Cap protects against increases in cleanup costs due to unknown or changing conditions, including more stringent requirements than currently exist.

Other environmental insurance policies are available to protect financial institutions lending money for the purchase of distressed assets, contractors working on environmental projects, and to limit underground storage tank closure liability. Generally, if the risk is related to environmental conditions, it is likely that an insurance product can be adapted to protect against risk.

6.17 General Conclusions

Based upon our limited review of publicly available information and our drive-by survey, some facilities within the Coyote Valley Specific Plan are likely to use, store, and/or generate hazardous materials. Some of these facilities have publicly reported releases. The most predominant land use at the site, both current and historic, is agricultural, including orchards, row crops, and greenhouses. Prior to future development at the site, we recommend performing a complete Phase I assessment with emphasis on facilities that use significant quantities of hazardous materials and those properties that have been used for agricultural purposes. Soil and/or ground water sampling at these parcels should be performed to further evaluate environmental conditions.

7.0 LIMITATIONS

This report was prepared for the sole use of David J. Powers & Associates in evaluating hazardous materials and soil quality at the Coyote Valley site at the time of these studies. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed. We are not responsible for the data presented by others.

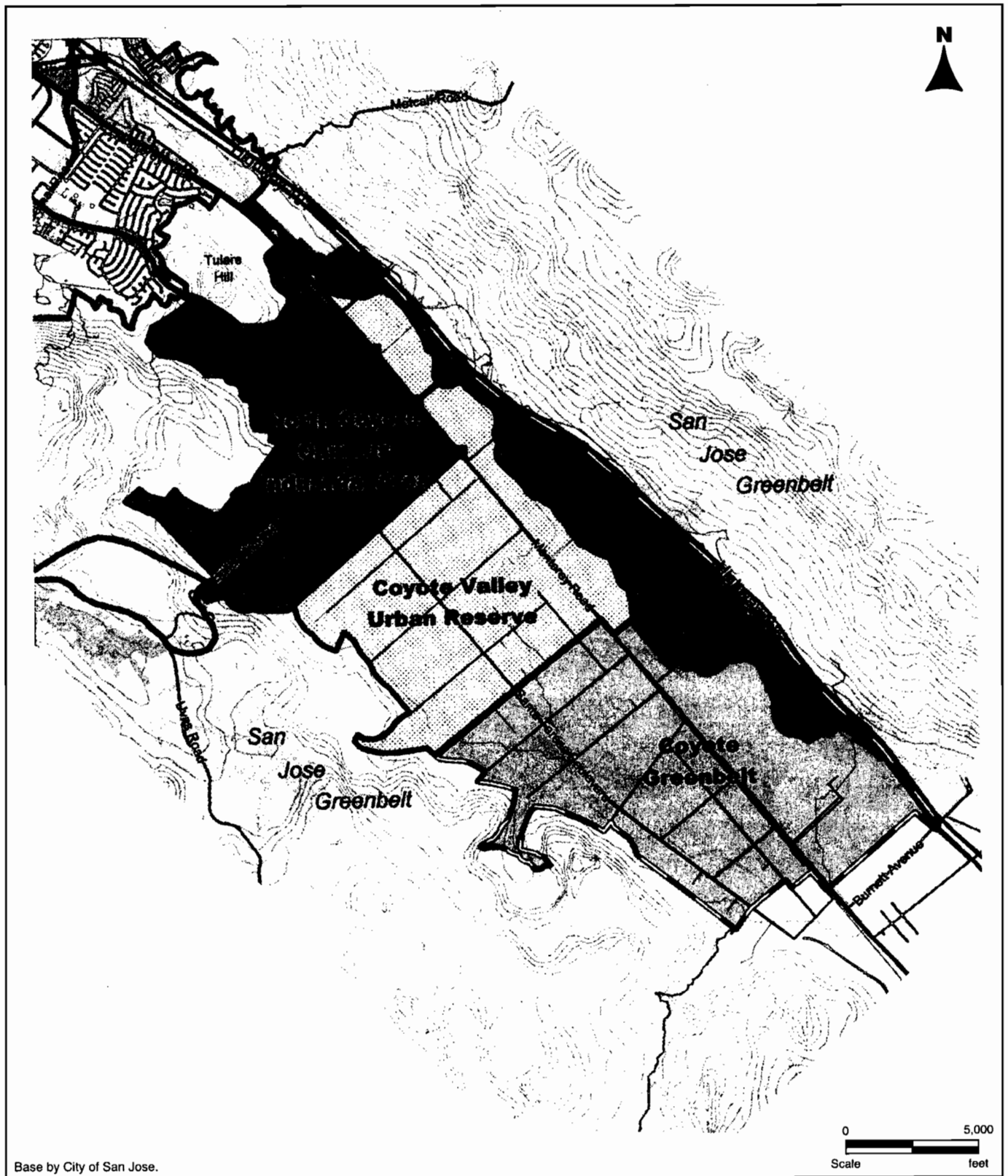
As with all limited site assessments, the extent of information obtained is a function of client demands, time limitations, and budgetary constraints. Our conclusions regarding the Coyote Valley Specific Plan area are based on readily observable site conditions, review of readily available documents and data collected and/or reported by others. Due to poor or inadequate address information, the regulatory agency database report listed several sites that may be inaccurately mapped or could not be mapped; leaks or spills from these or other facilities, if nearby, could impact the site.

The accuracy and reliability of geochemical studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. Chemical analyses were performed for specific parameters during this investigation, as detailed in the scope of services. Please note that additional constituents not analyzed for during this evaluation may be present in soil and ground water at the site. Our sampling and analytical plan was designed using accepted environmental principles and our judgment for the performance of a soil quality evaluation and was based on the degree of investigation approved by you. It is possible to obtain a greater degree of certainty, if desired, by implementing a more rigorous soil and ground water sampling program or evaluating the risk posed by the contaminants detected, if any.

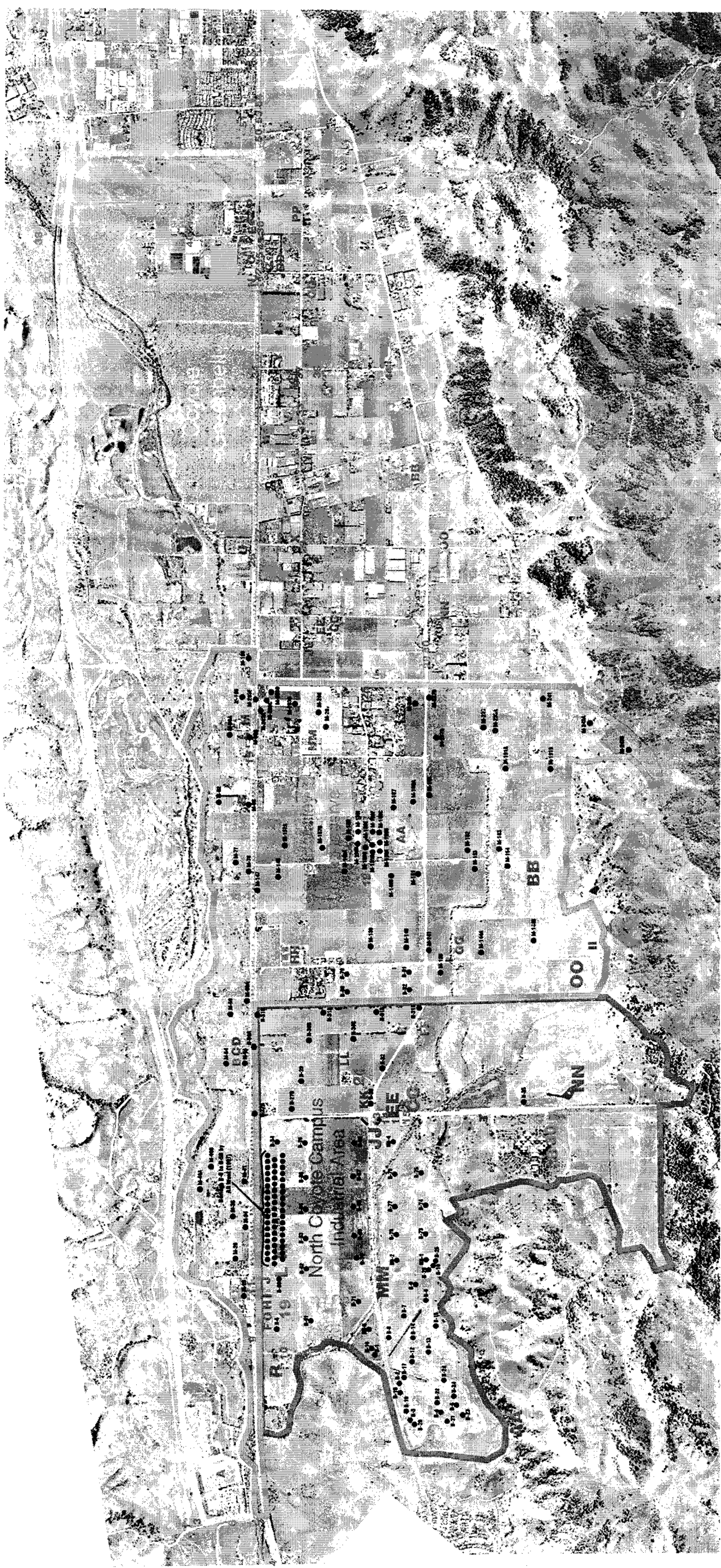
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* * * * *



VICINITY MAP
 COYOTE VALLEY SPECIFIC PLAN EIR
 San Jose, California



180820

- [illegible]

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.



SITE PLAN
COYOTE VALLEY SPECIFIC PLAN EIR
San Jose, California

TRC Lovney

FIGURE 2

859-38A